

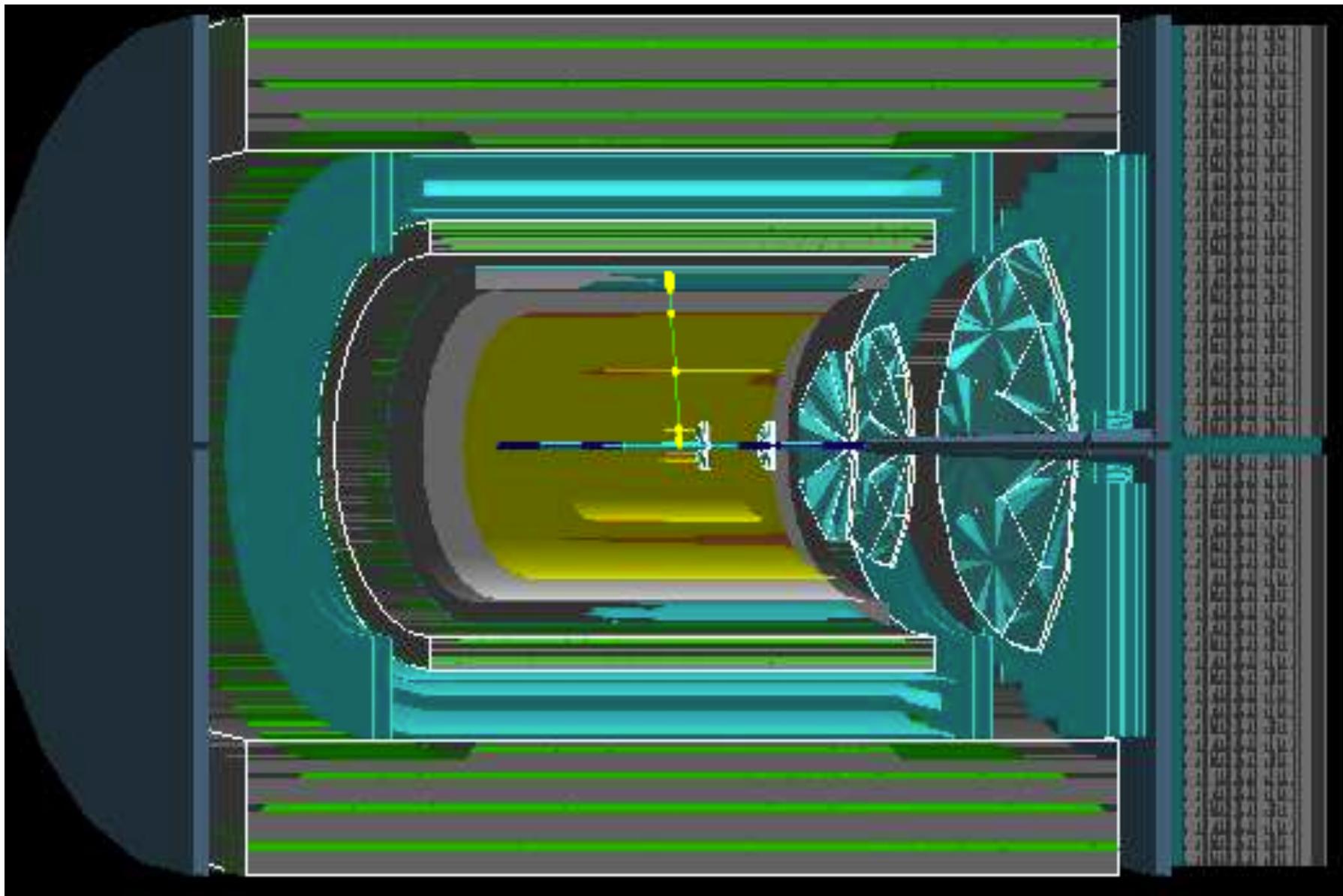
γ , π^0 , η Simulation in f/sPHENIX Detector

Vasily Jorjadze

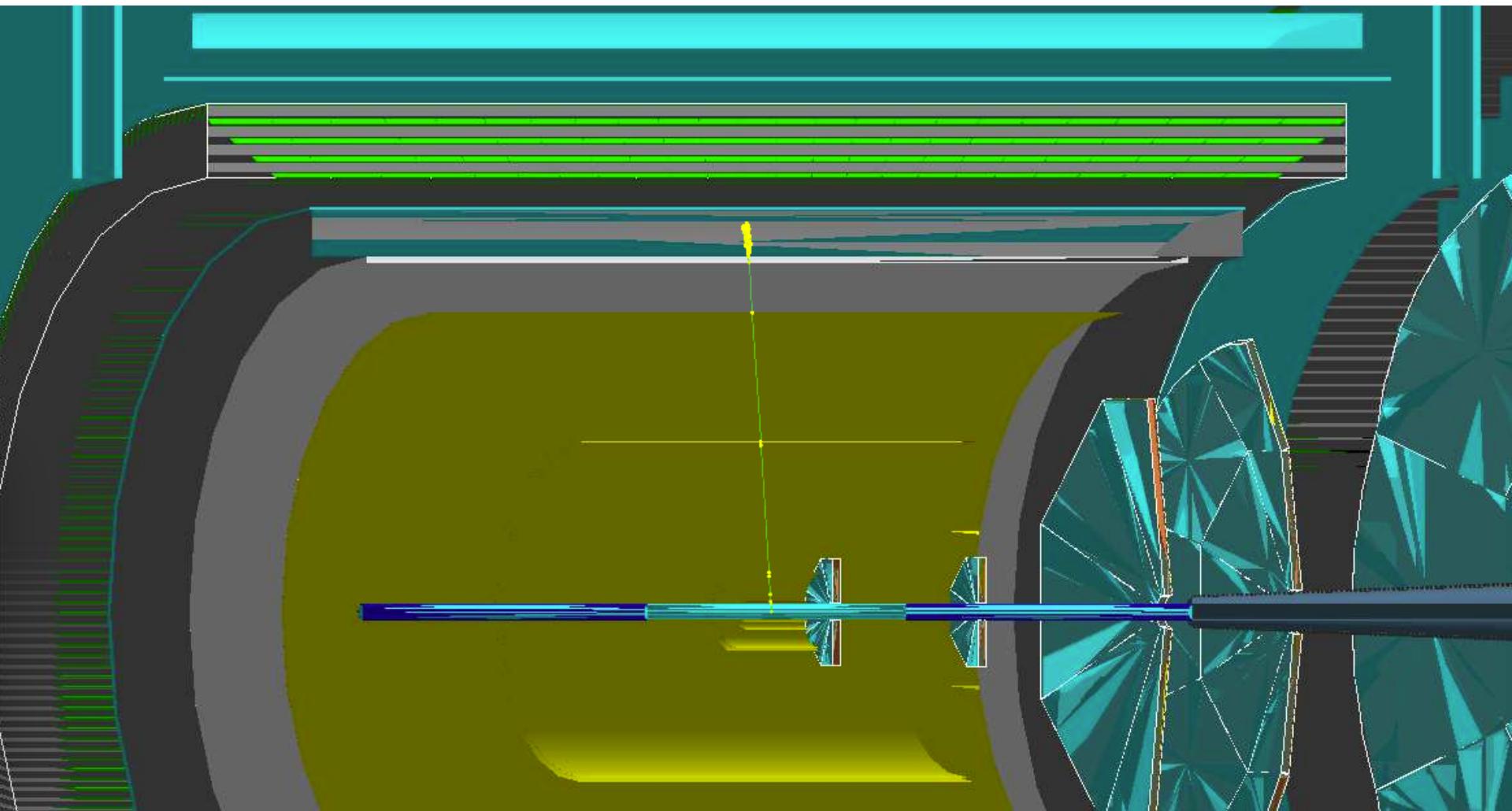
SBU

October 17, 2016

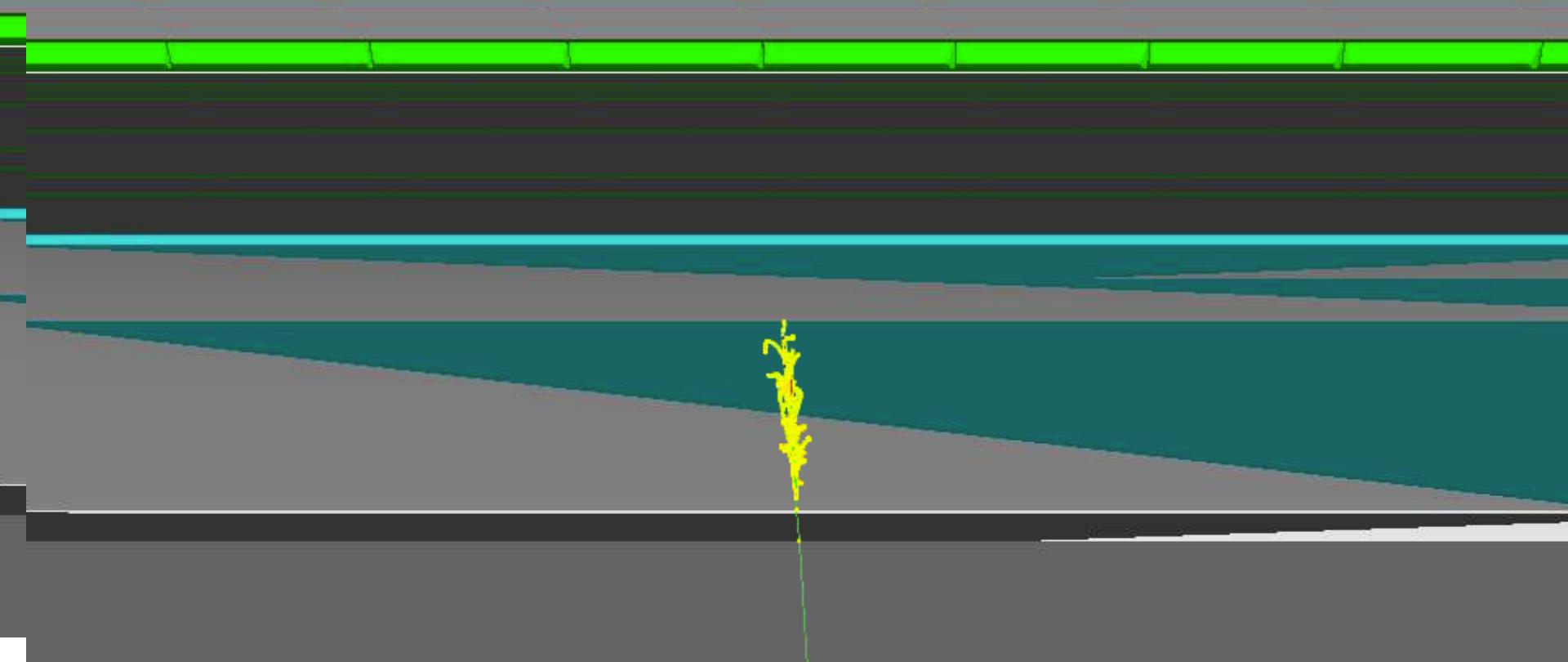
Single γ in Central Detector, $P=15 \text{ GeV}/c$



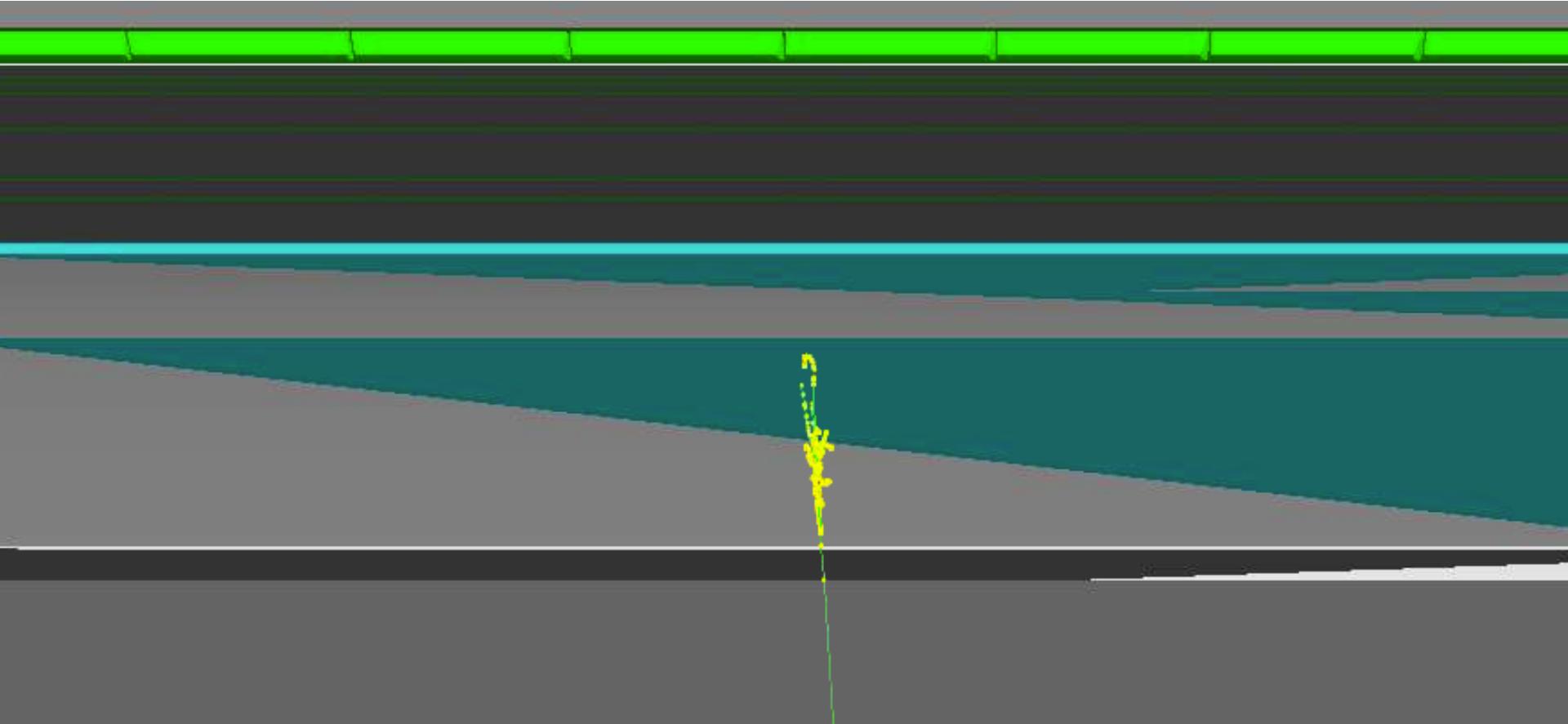
Single γ in Central Detector, $P=15 \text{ GeV}/c$



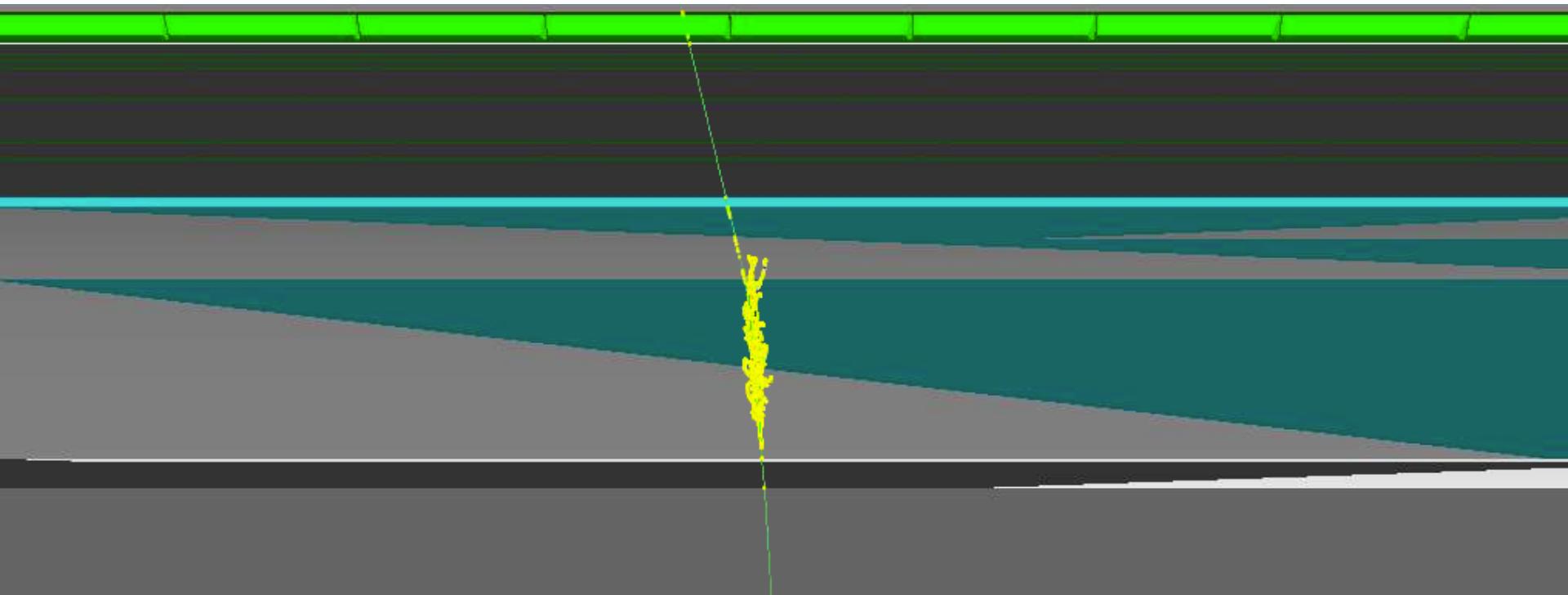
Single γ in Central Detector, $P=15 \text{ GeV}/c$



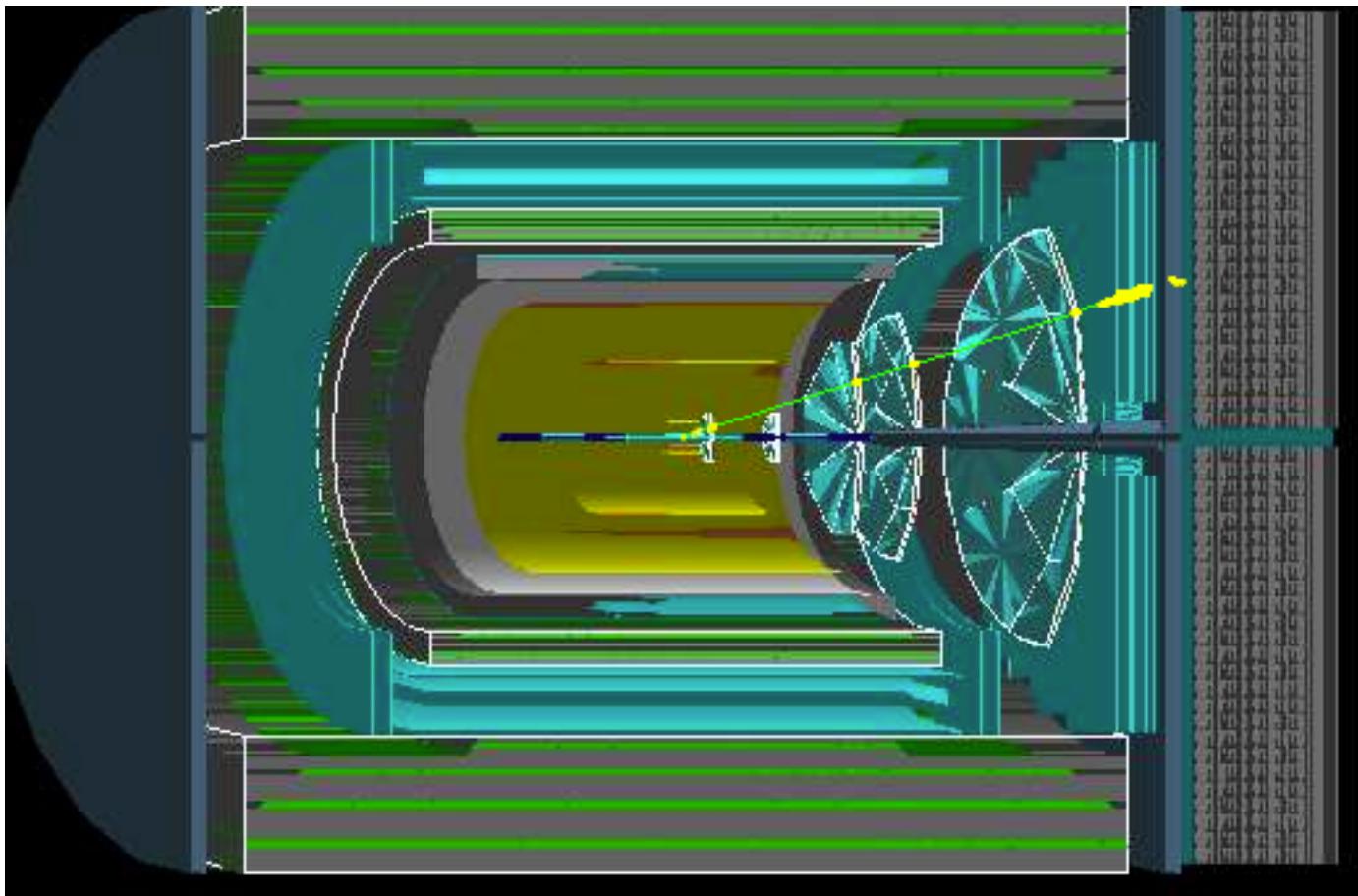
Single γ in Central Detector, $P=5$ GeV/c



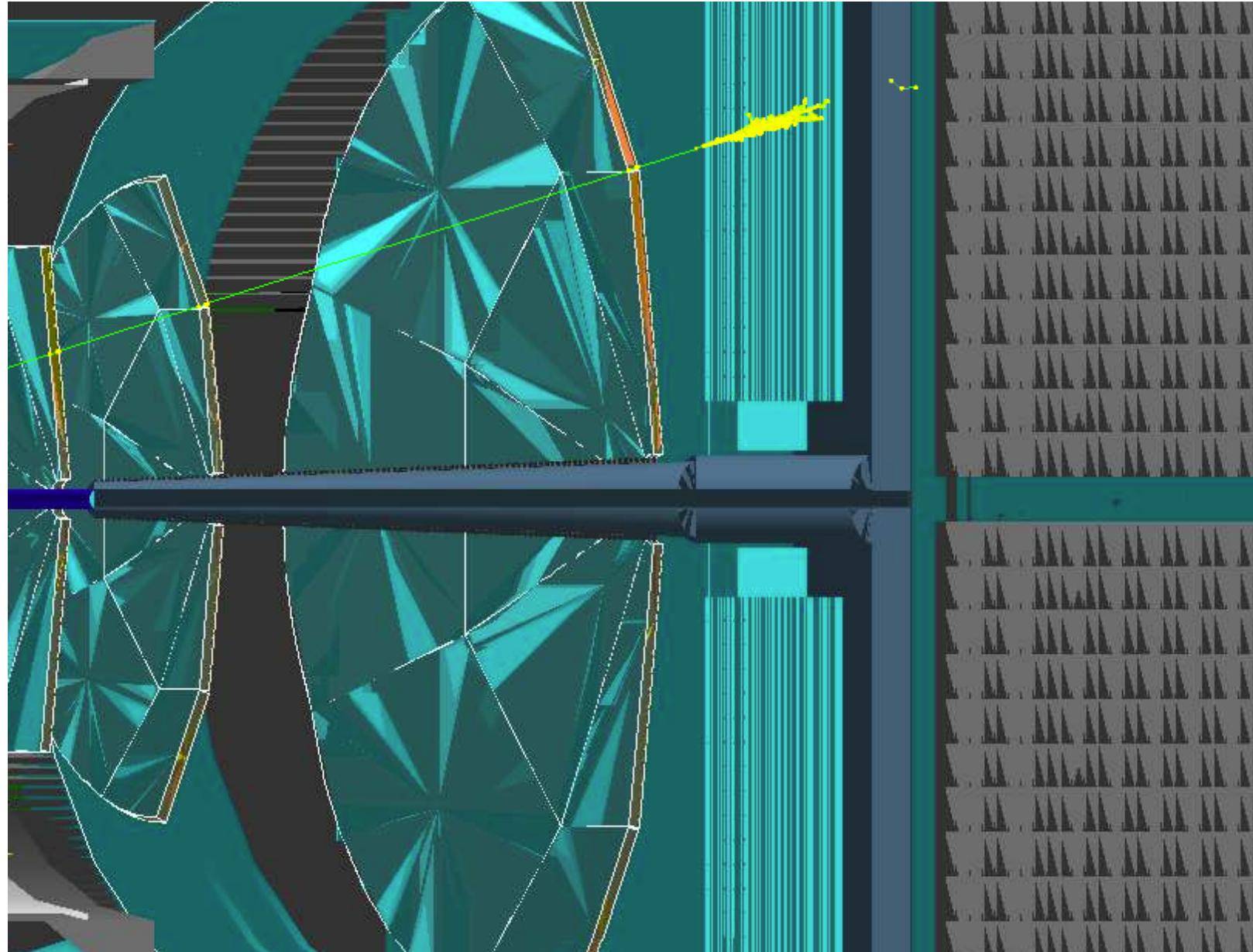
Single γ in Central Detector, P=25 GeV/c



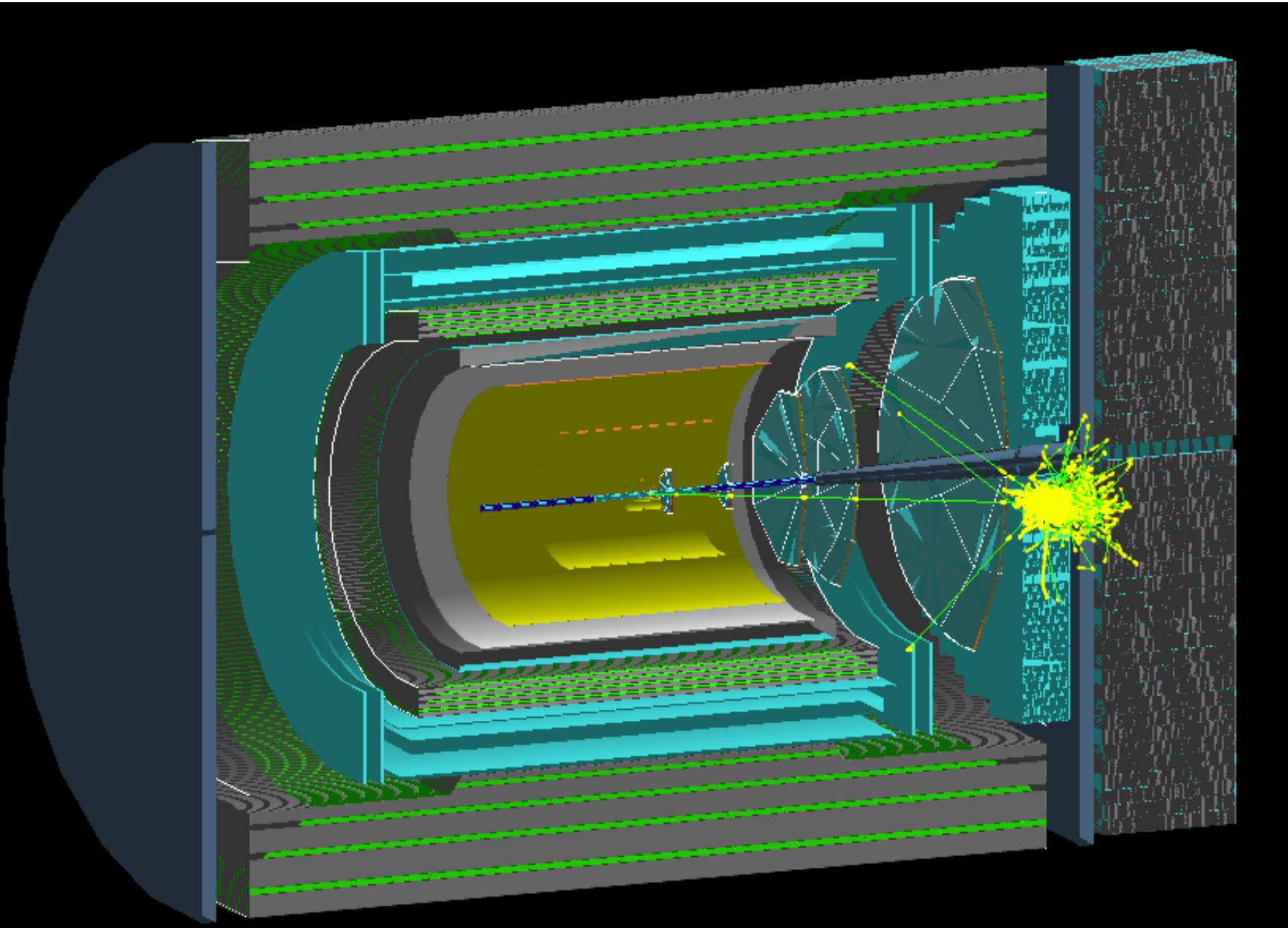
Single γ in Forward Detector, P=15 GeV/c



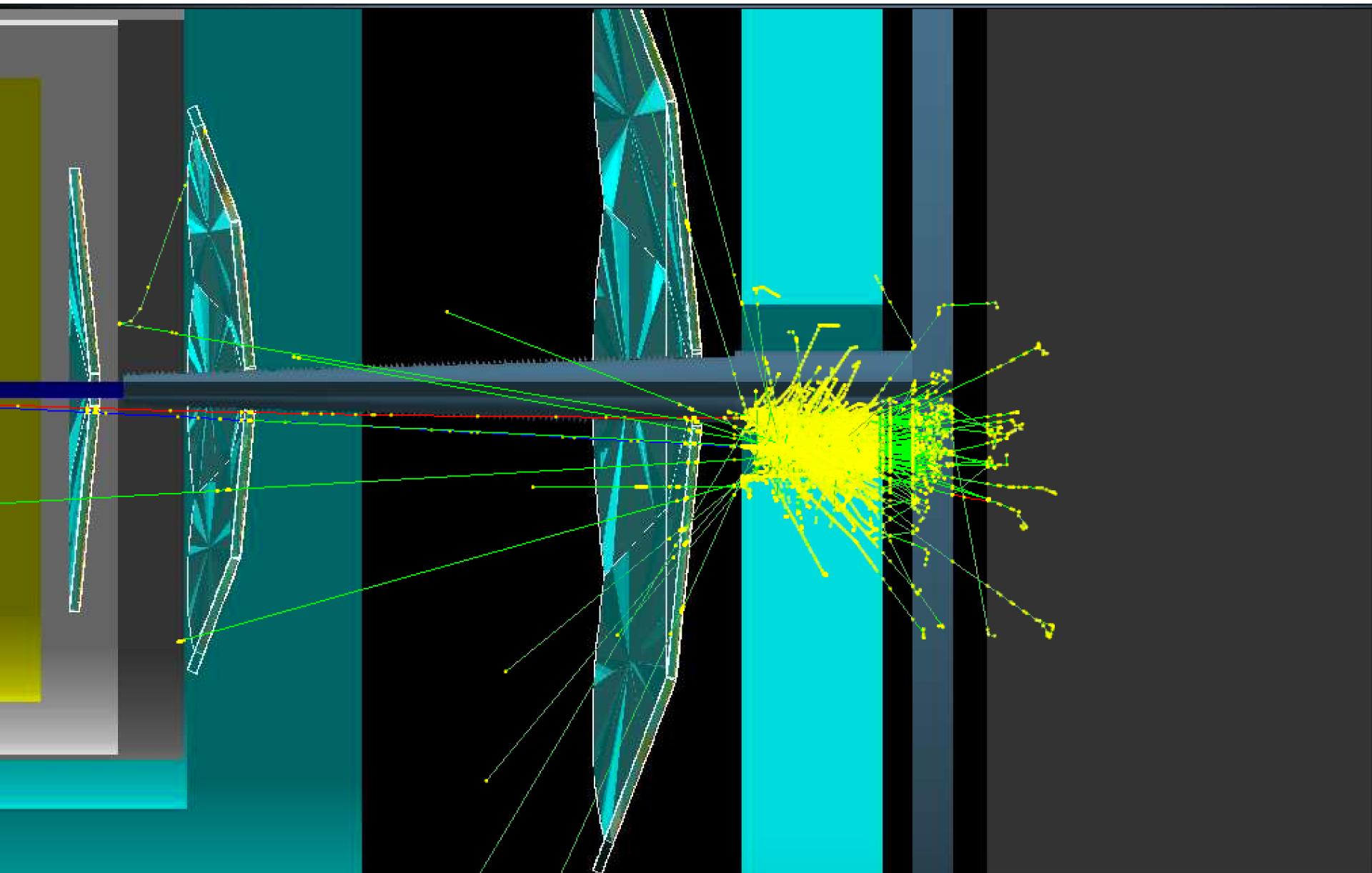
Single γ in Forward Detector, P=15 GeV/c



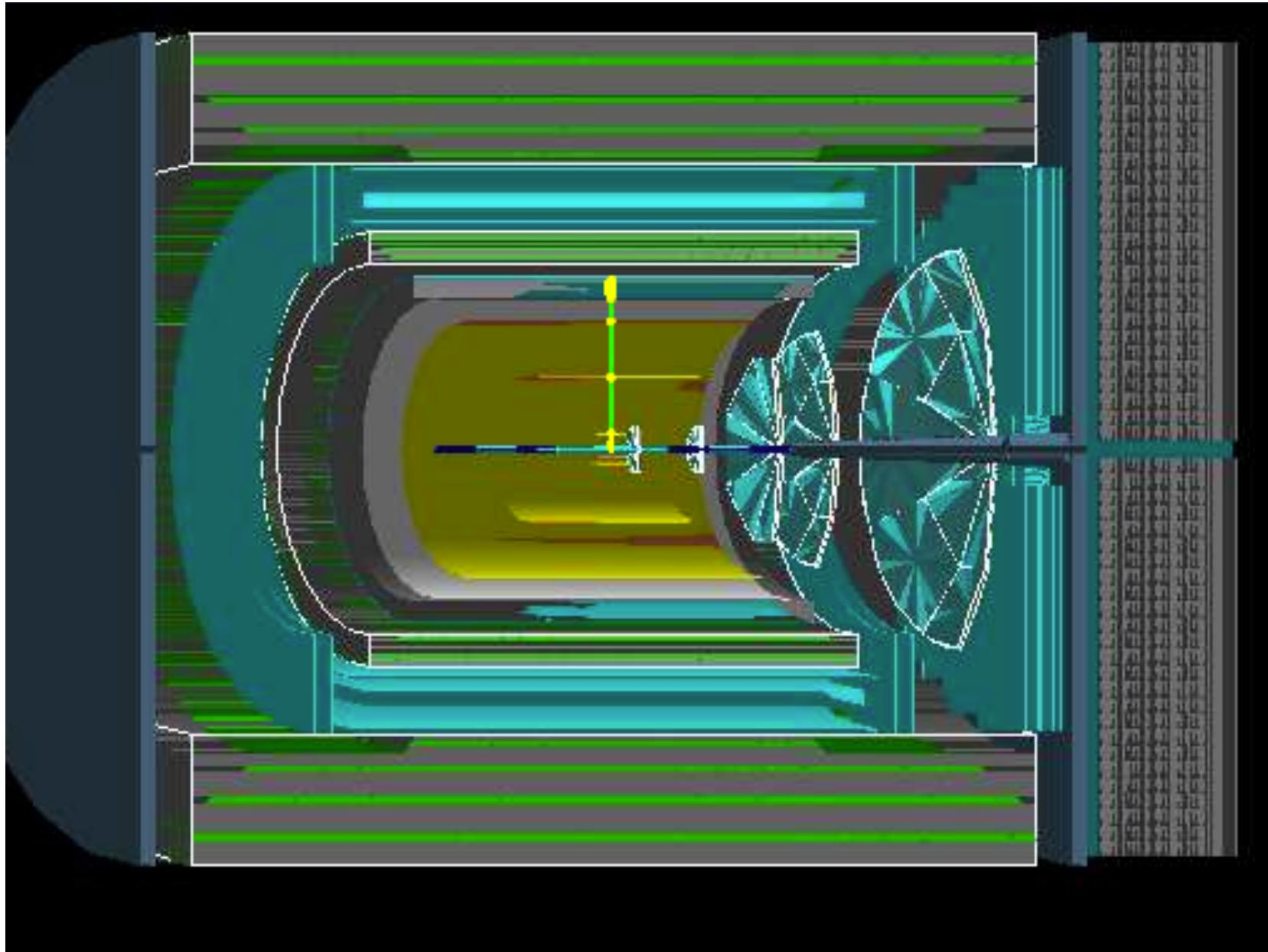
Single $\gamma \rightarrow e^+e^-$ in Forward Detector, $P=15 \text{ GeV}/c$



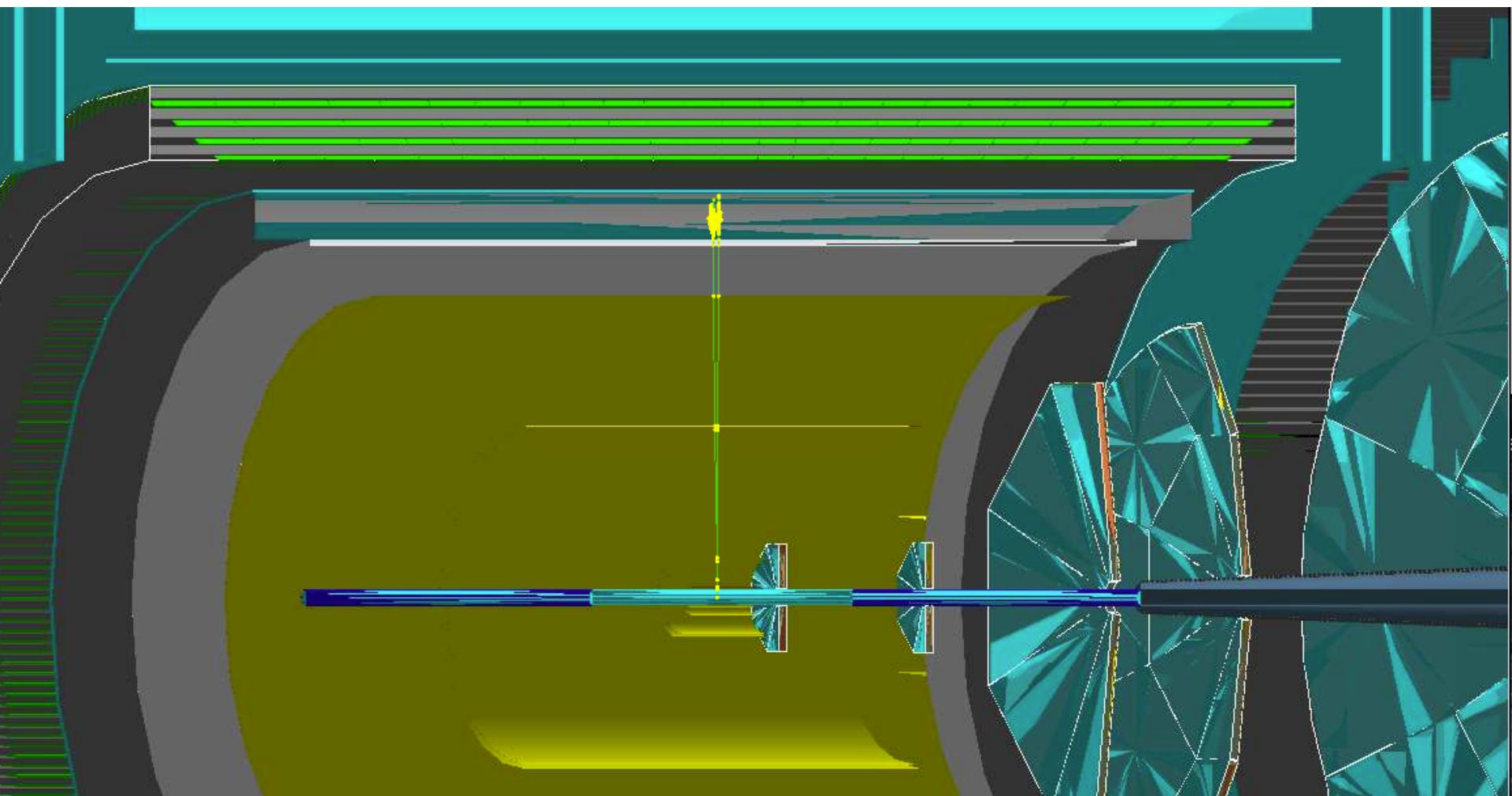
Single $\gamma \rightarrow e^+e^-$ in Forward Detector, $P=15 \text{ GeV}/c$



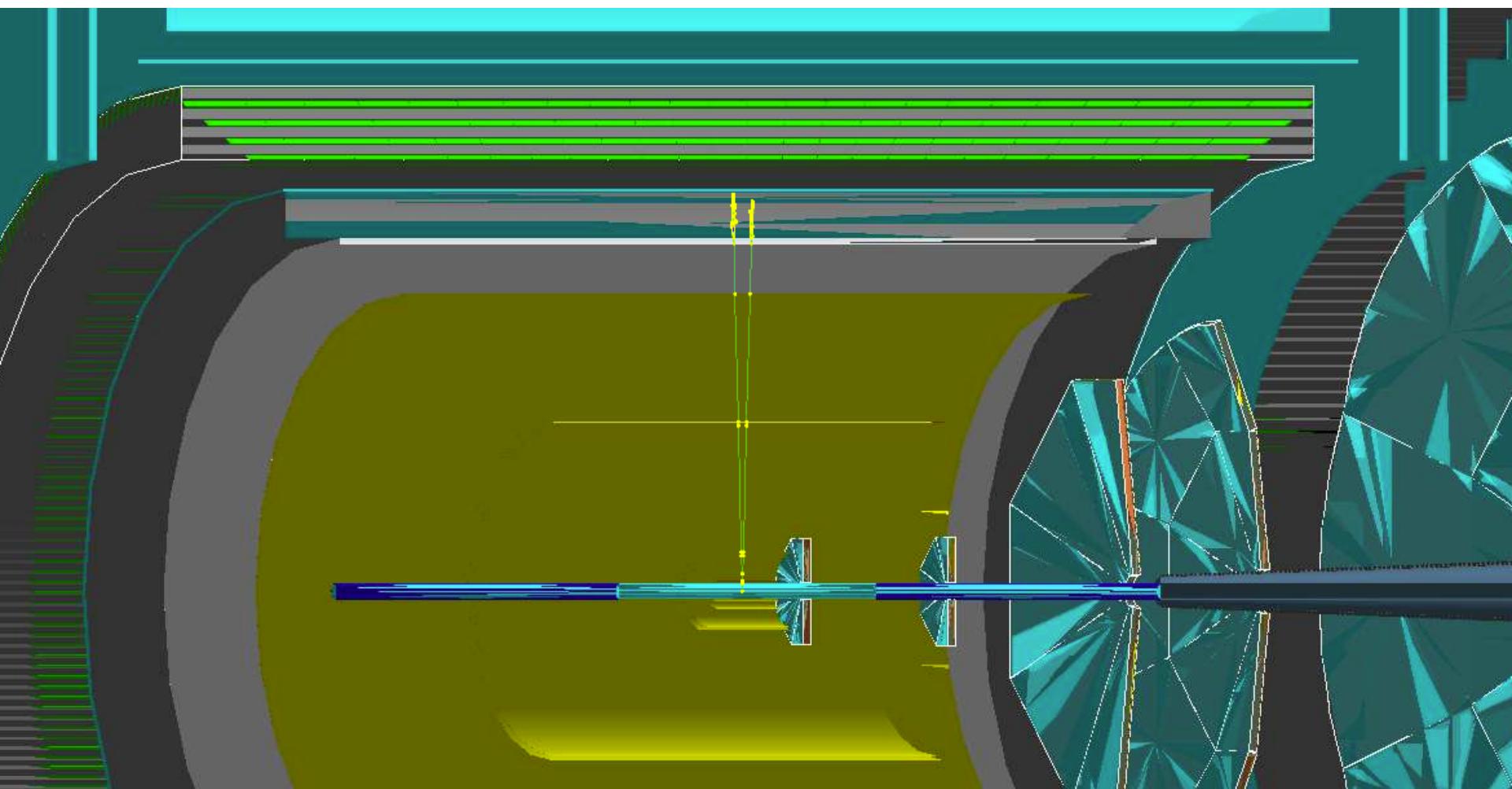
π^0 in Central Detector, P=15 GeV/c



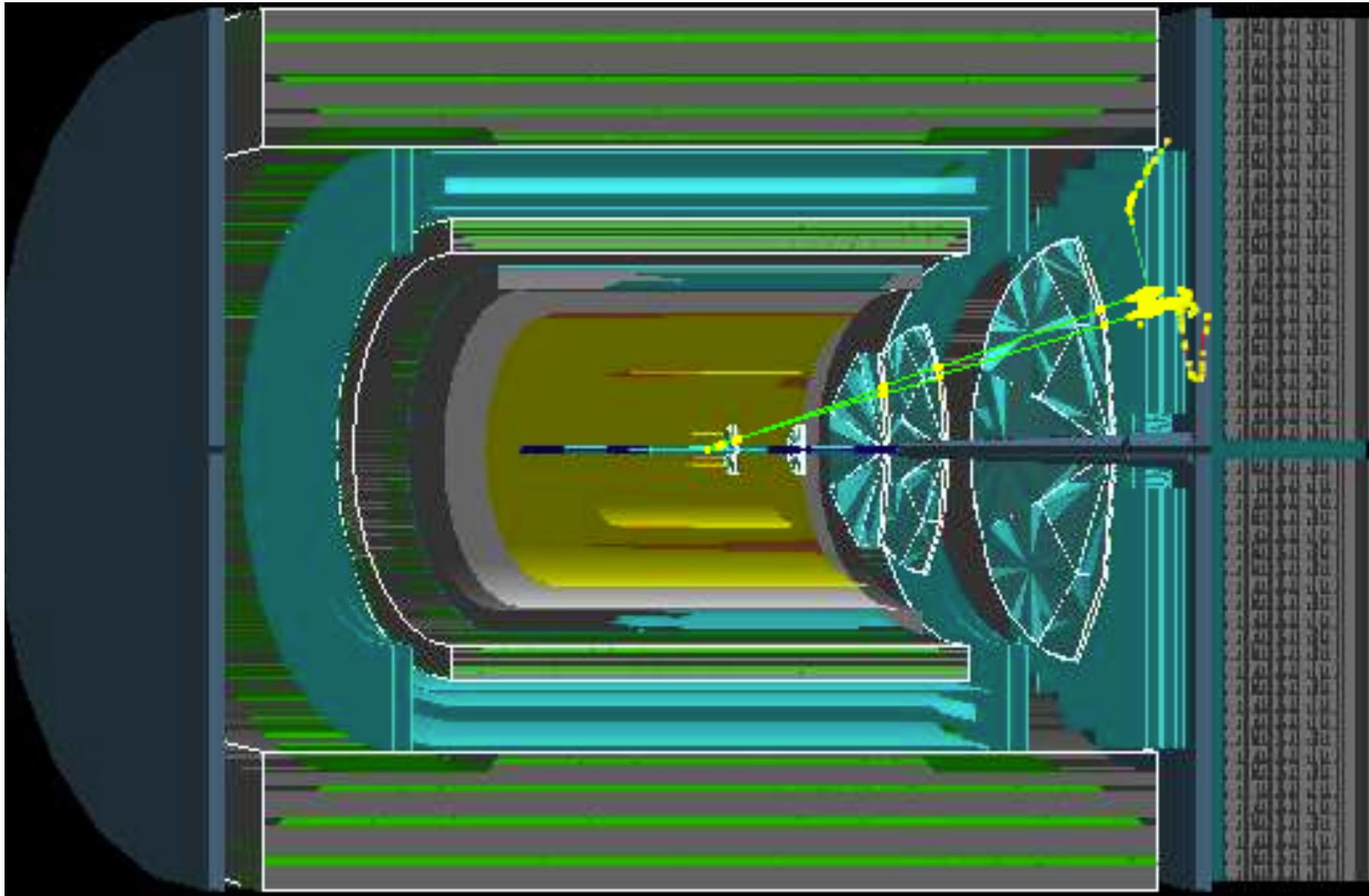
π^0 in Central Detector, P=15 GeV/c



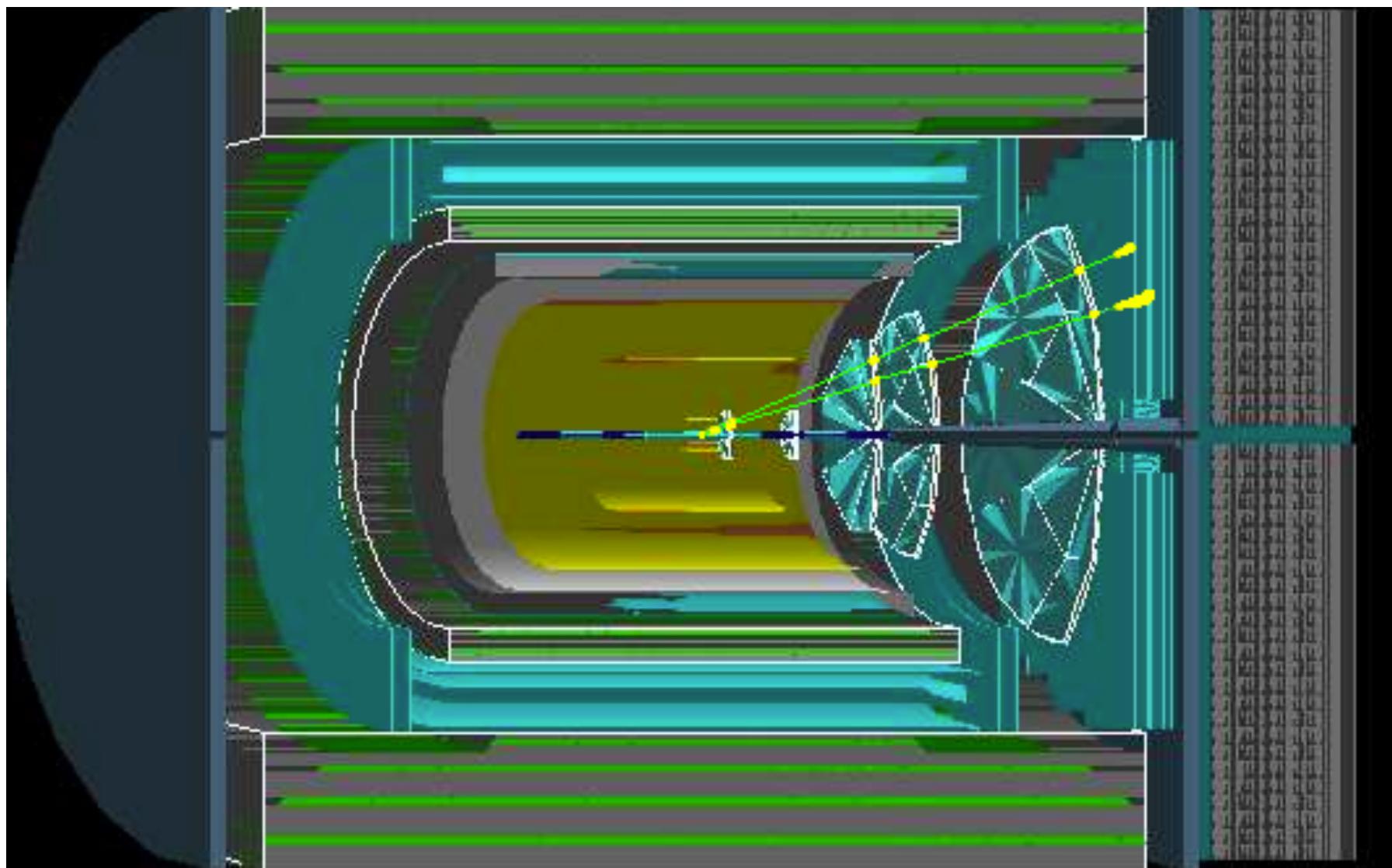
π^0 in Central Detector, P=5 GeV/c



π^0 in Forward Detector, P=15 GeV



π^0 in Forward Detector, P=5 GeV/c

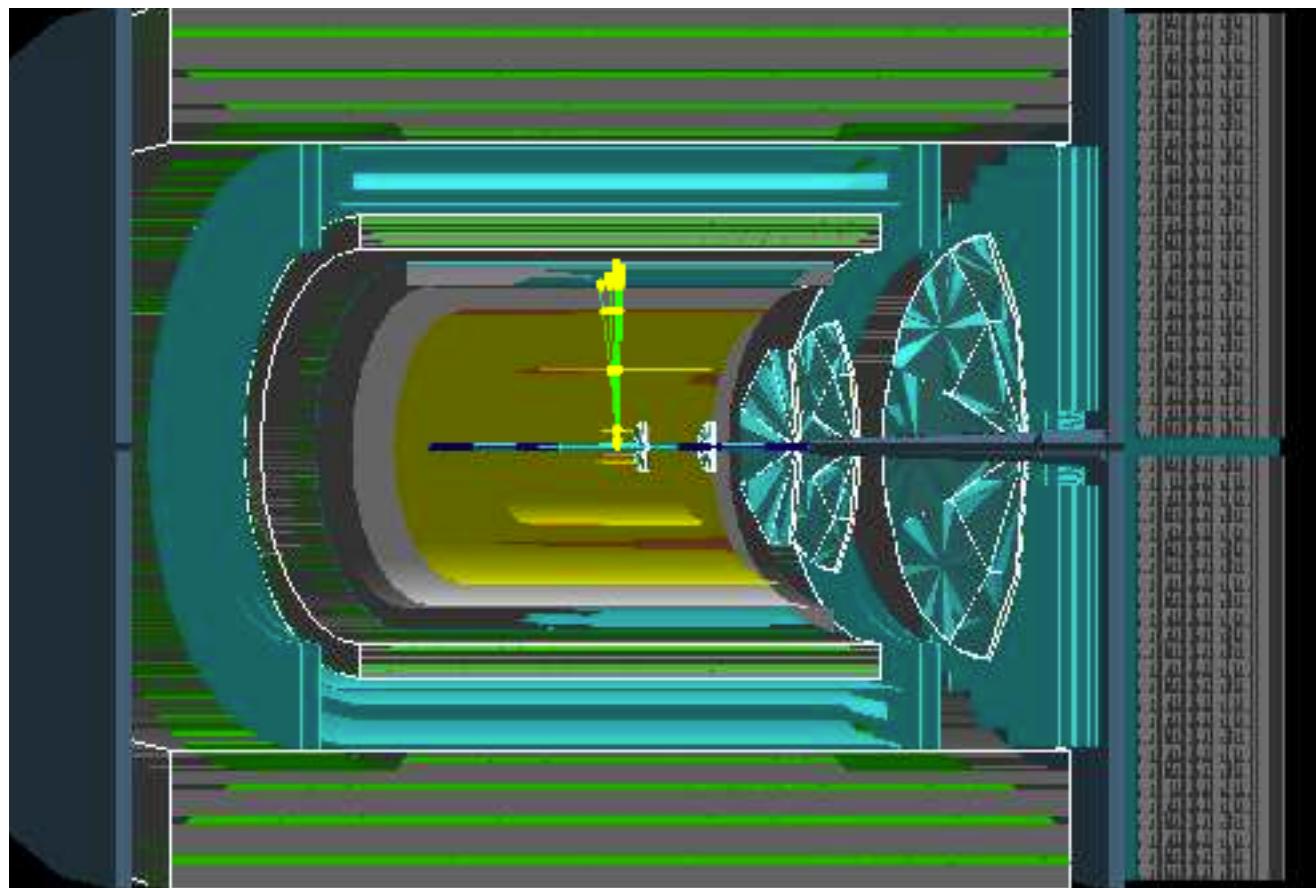


η decay Modes

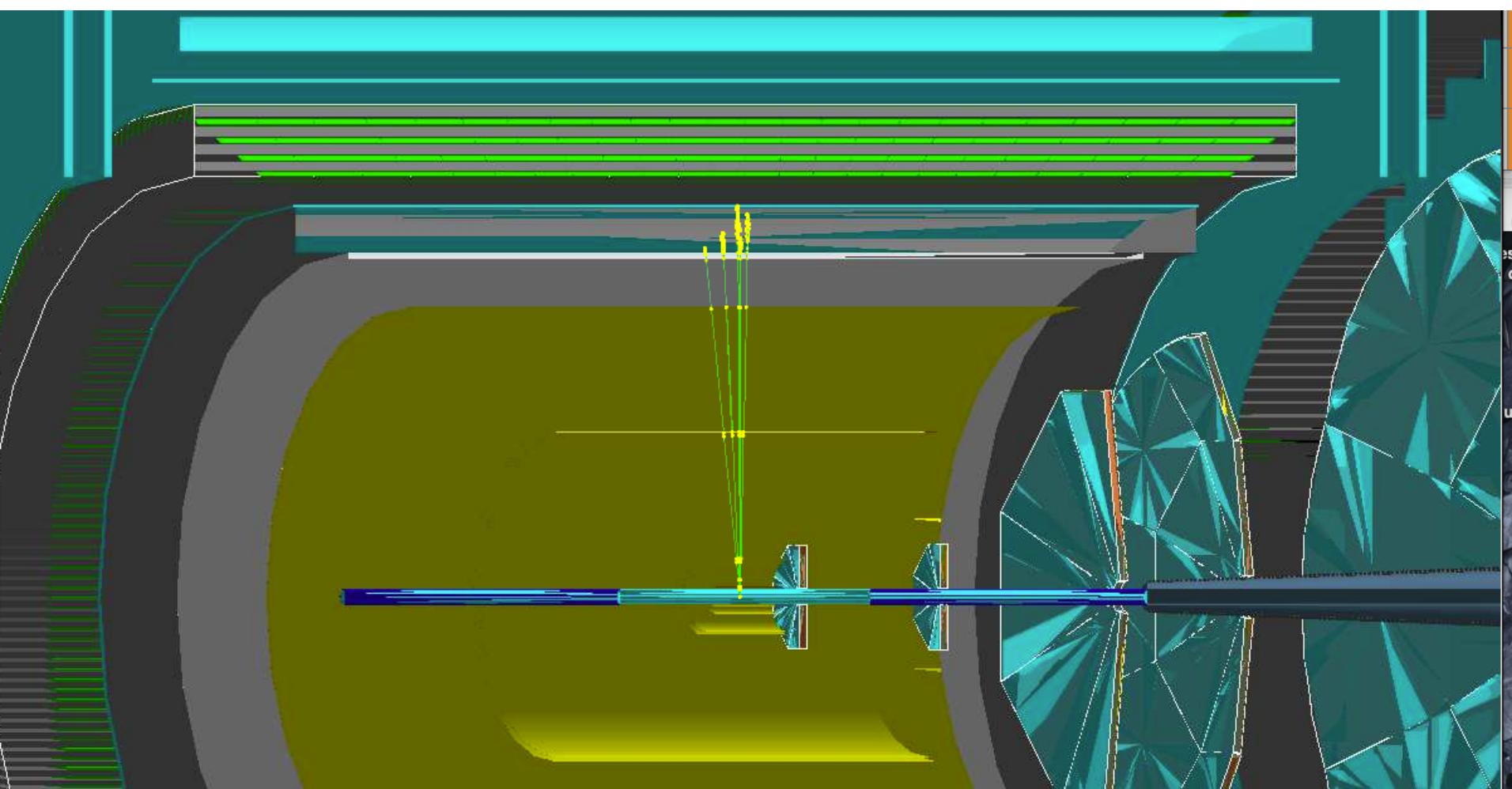
η DECAY MODES

Mode	Fraction (Γ_i/Γ)	Scale factor/ Confidence level
Neutral modes		
Γ_1 neutral modes	(72.12 \pm 0.34) %	S=1.2
Γ_2 2γ	(39.41 \pm 0.20) %	S=1.1
Γ_3 $3\pi^0$	(32.68 \pm 0.23) %	S=1.1

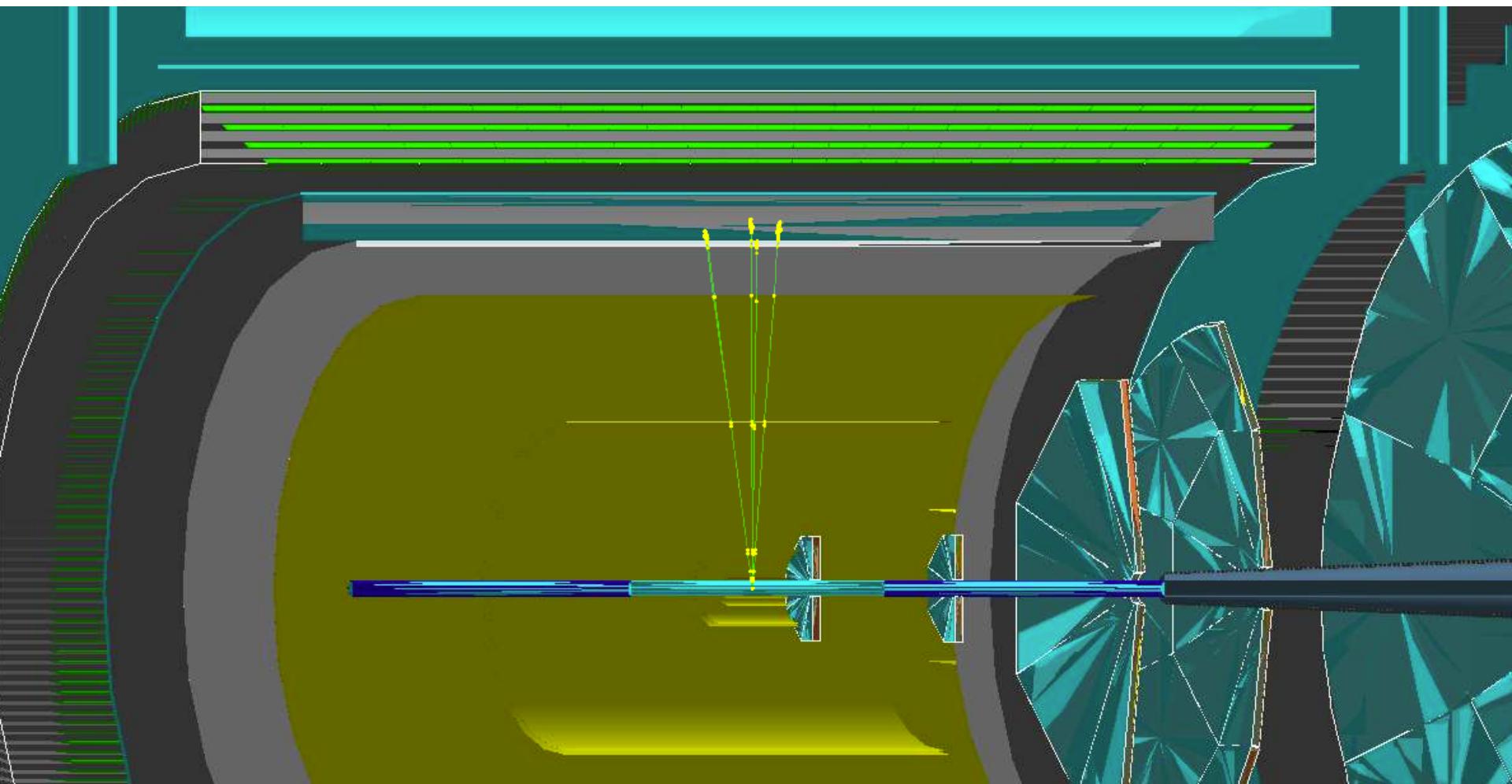
η in Central Detector, P= 15 GeV/c



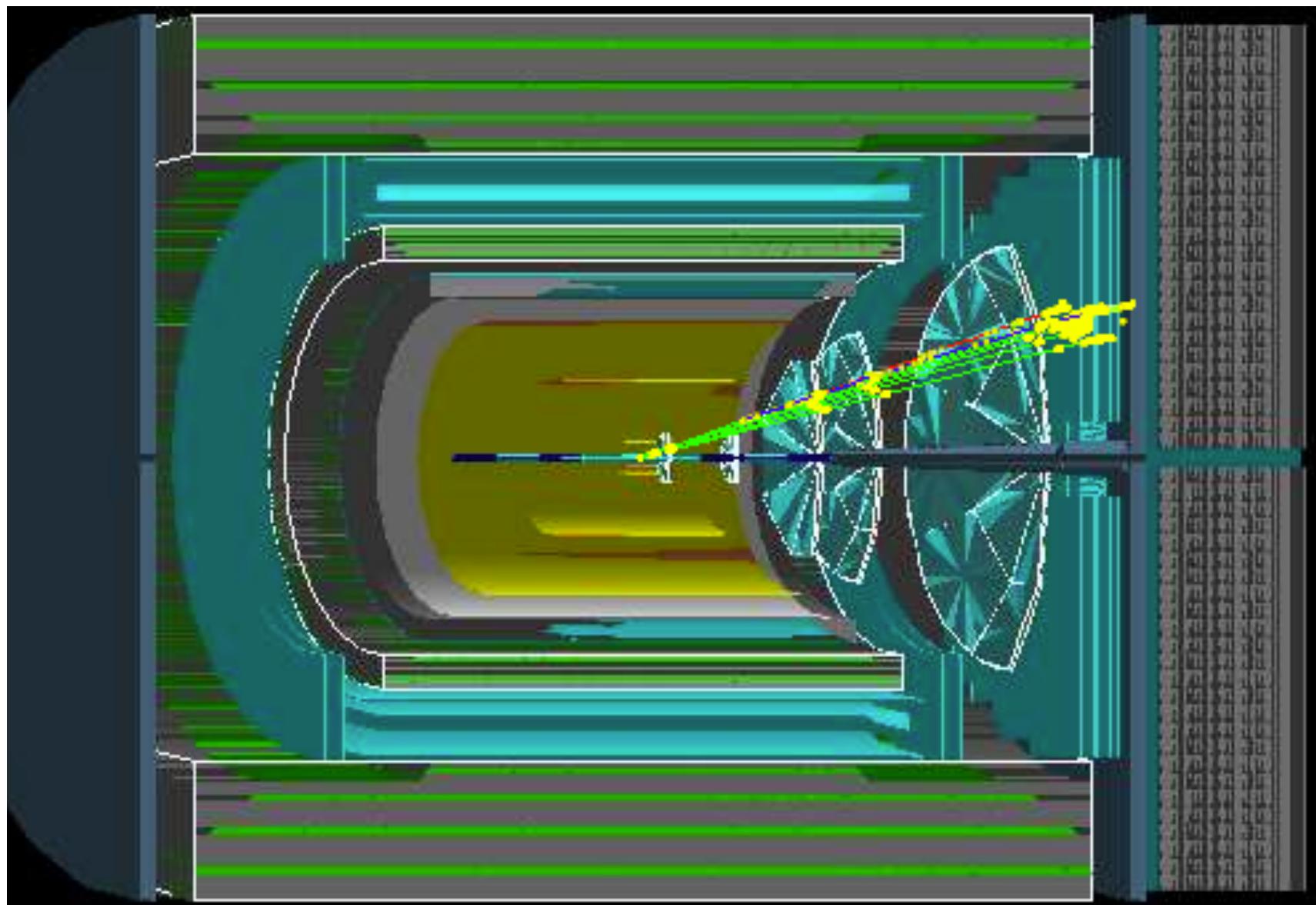
η in Central Detector, P= 15 GeV/c



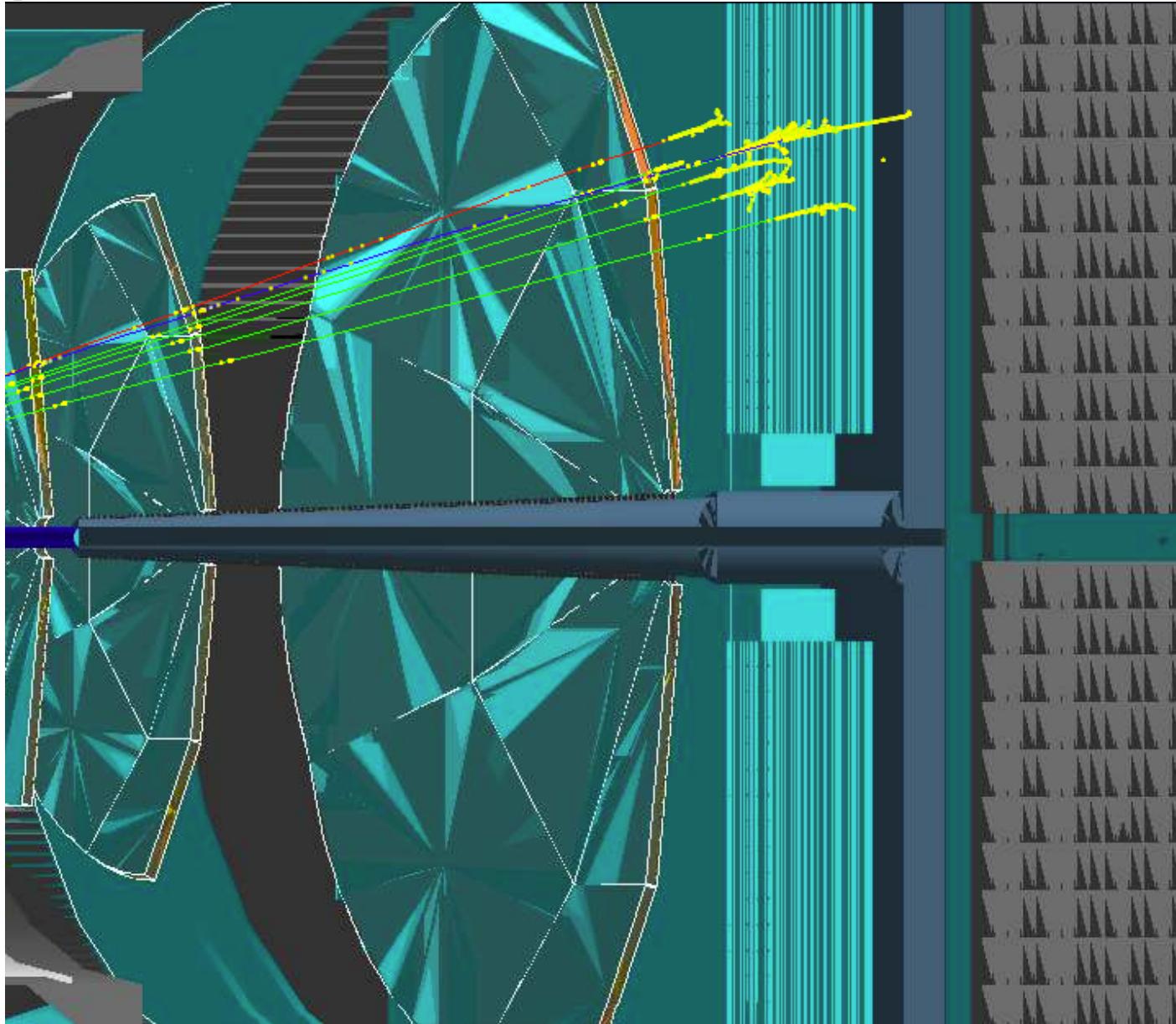
η in Central Detector, P= 5 GeV/c



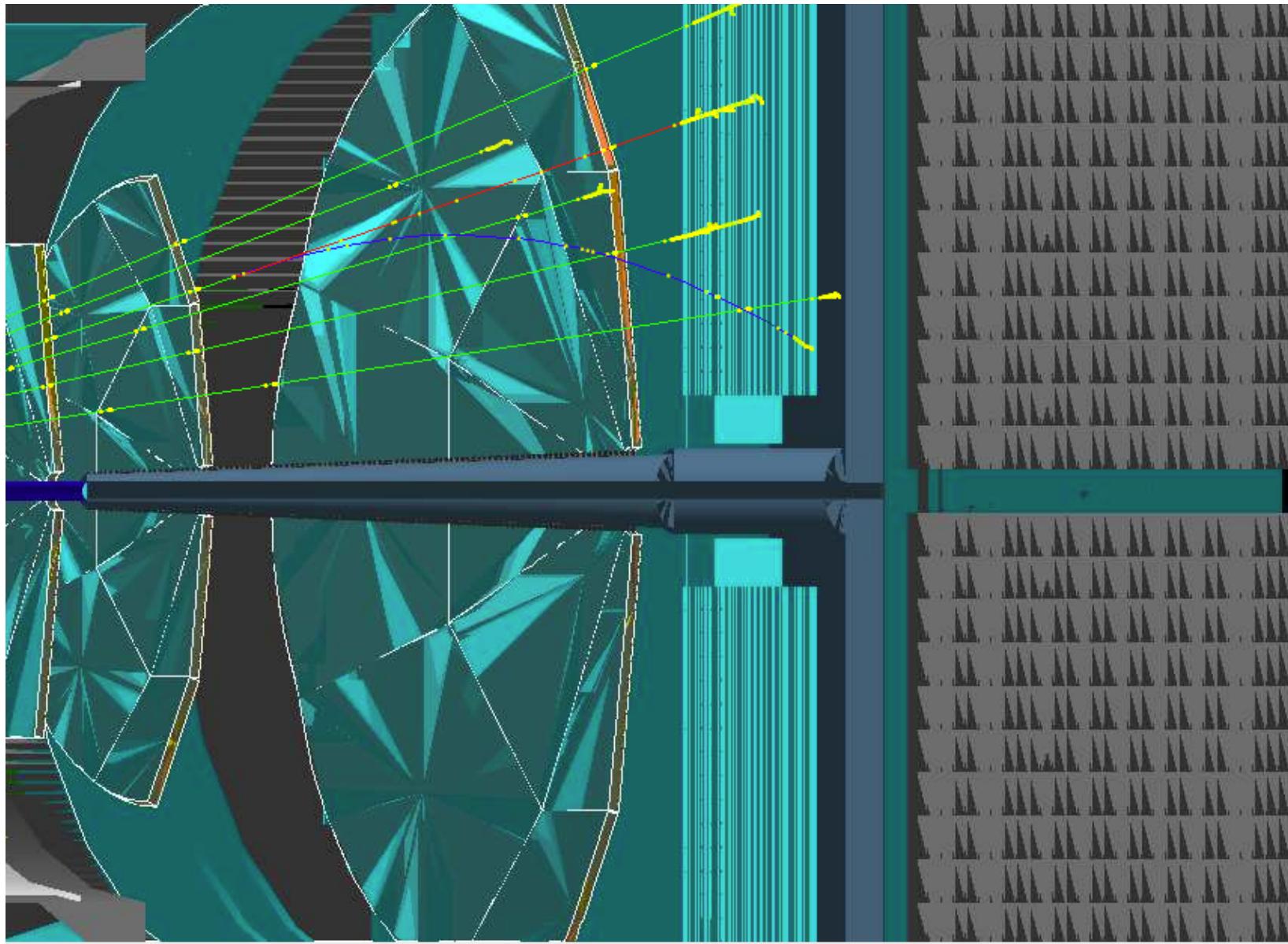
η in Forward Detector, P= 15 GeV/c



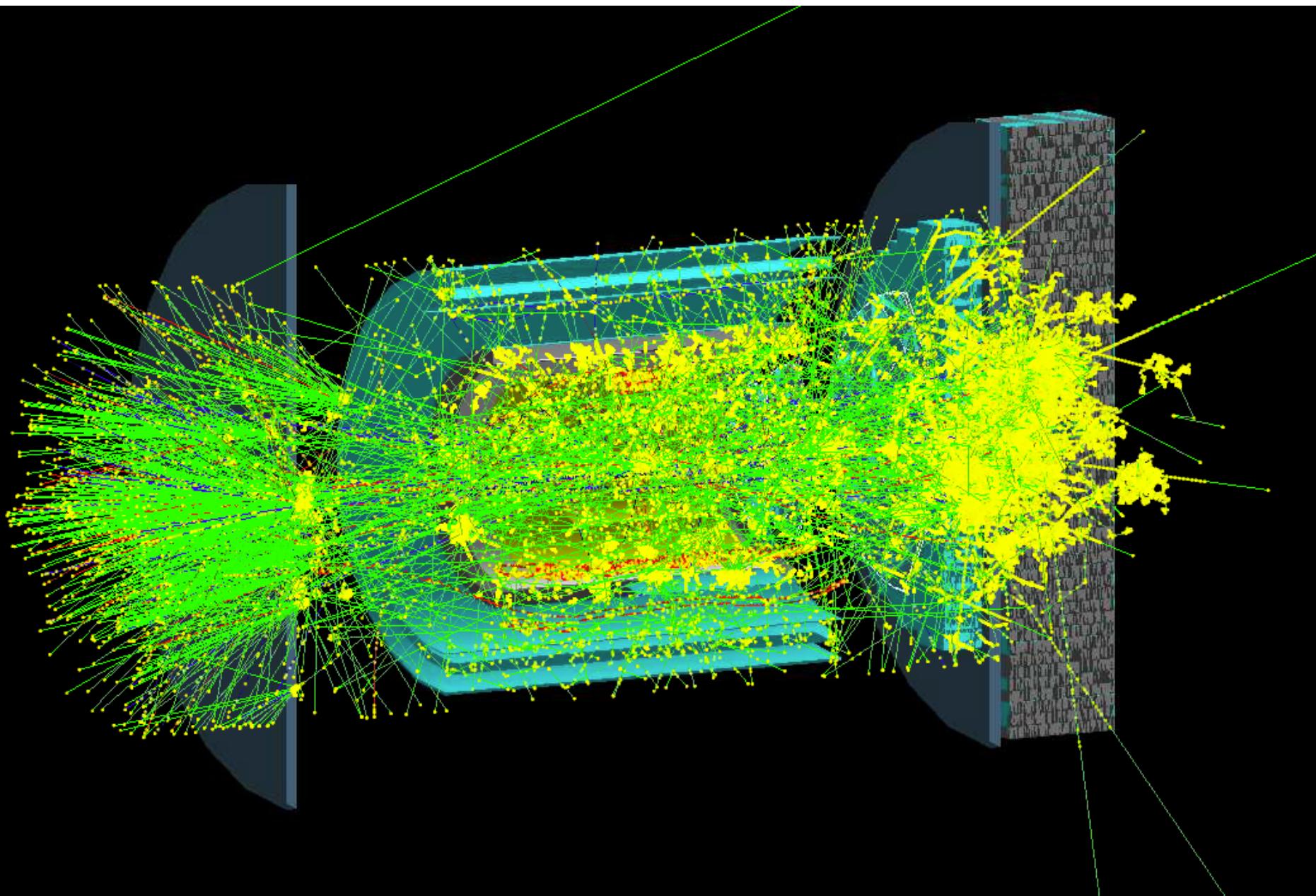
η in Forward Detector, P= 15 GeV/c



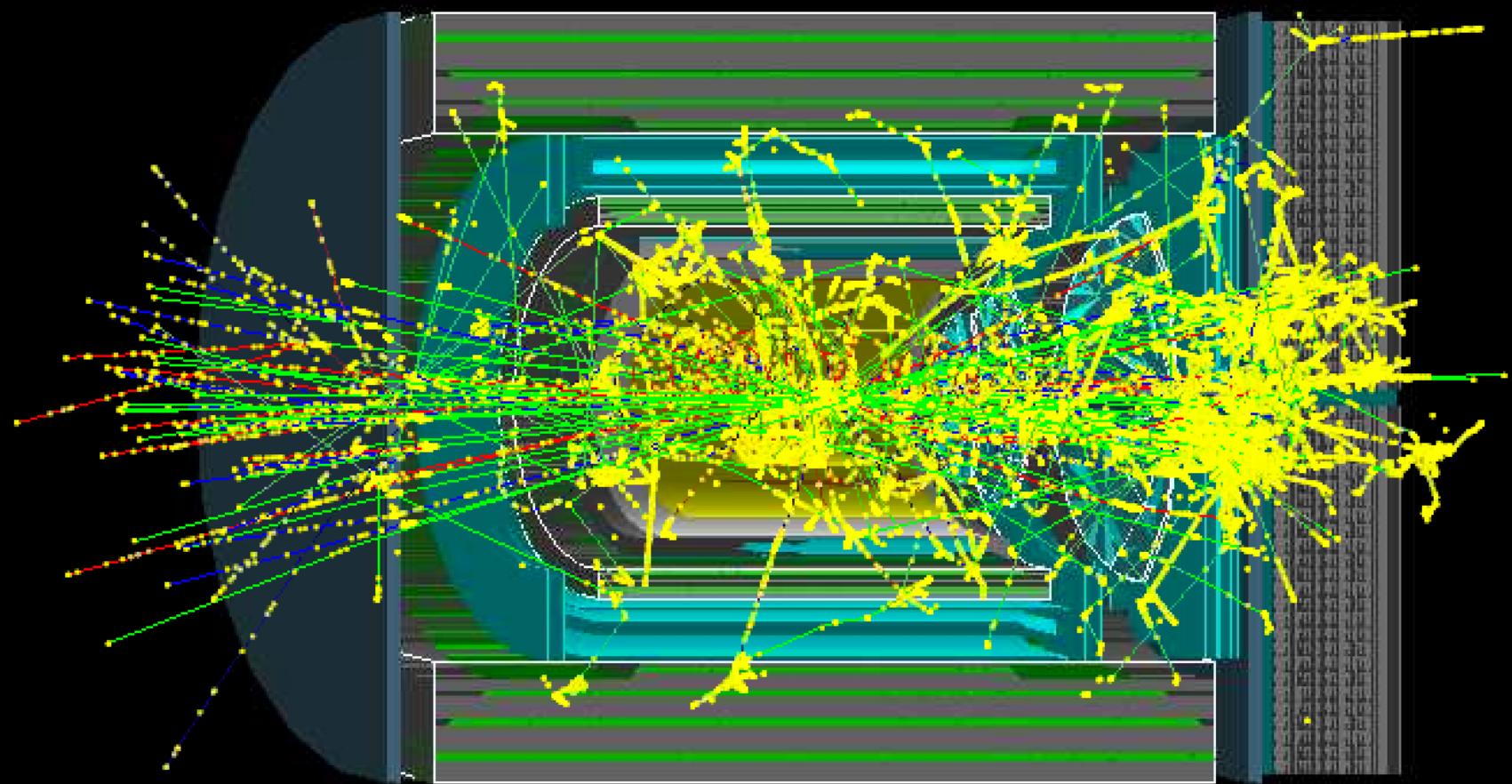
η in Forward Detector, P= 5 GeV/c



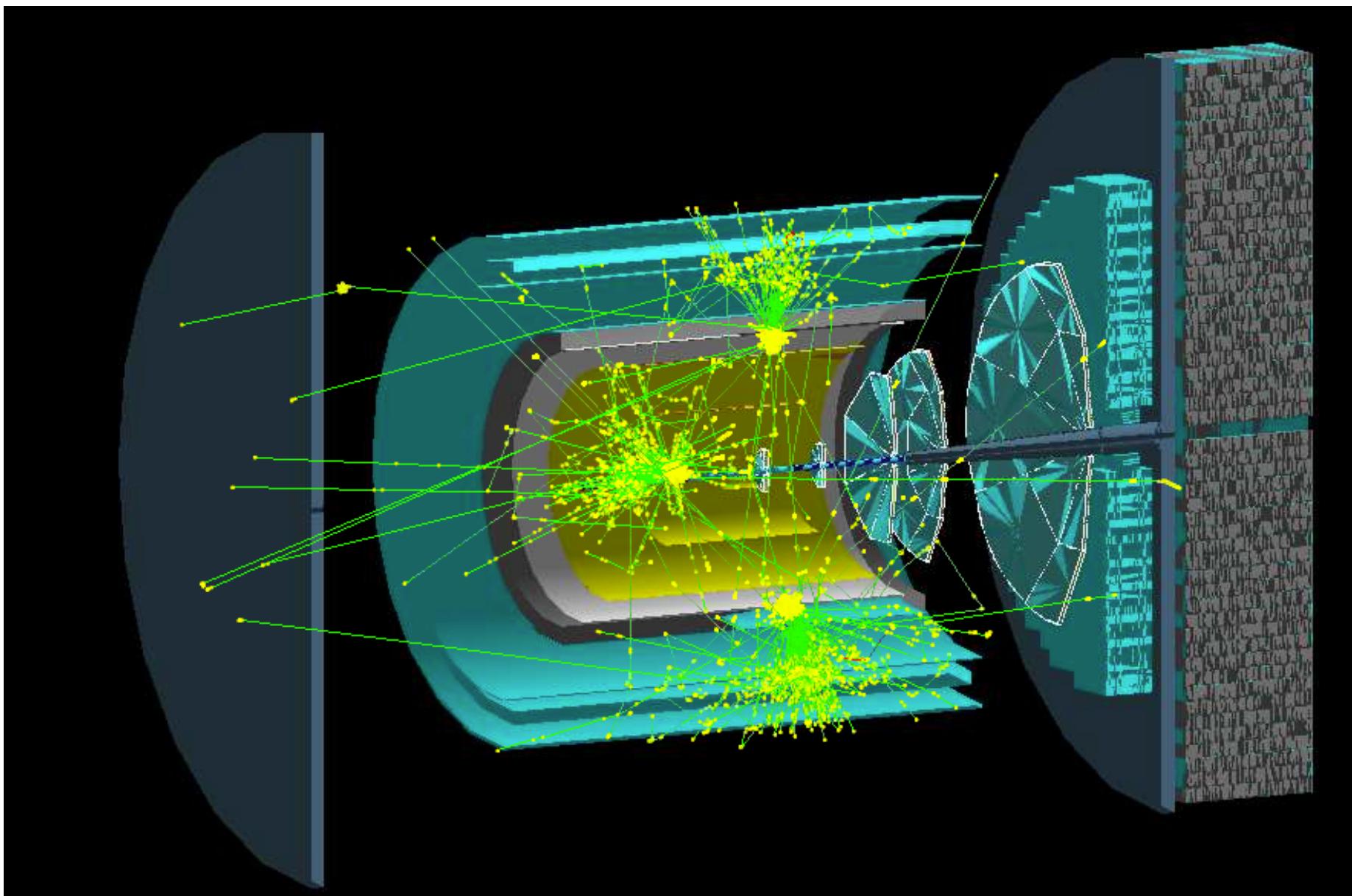
MB event in fsPHENIX Detector, pp 200 GeV $p>20\text{MeV}$



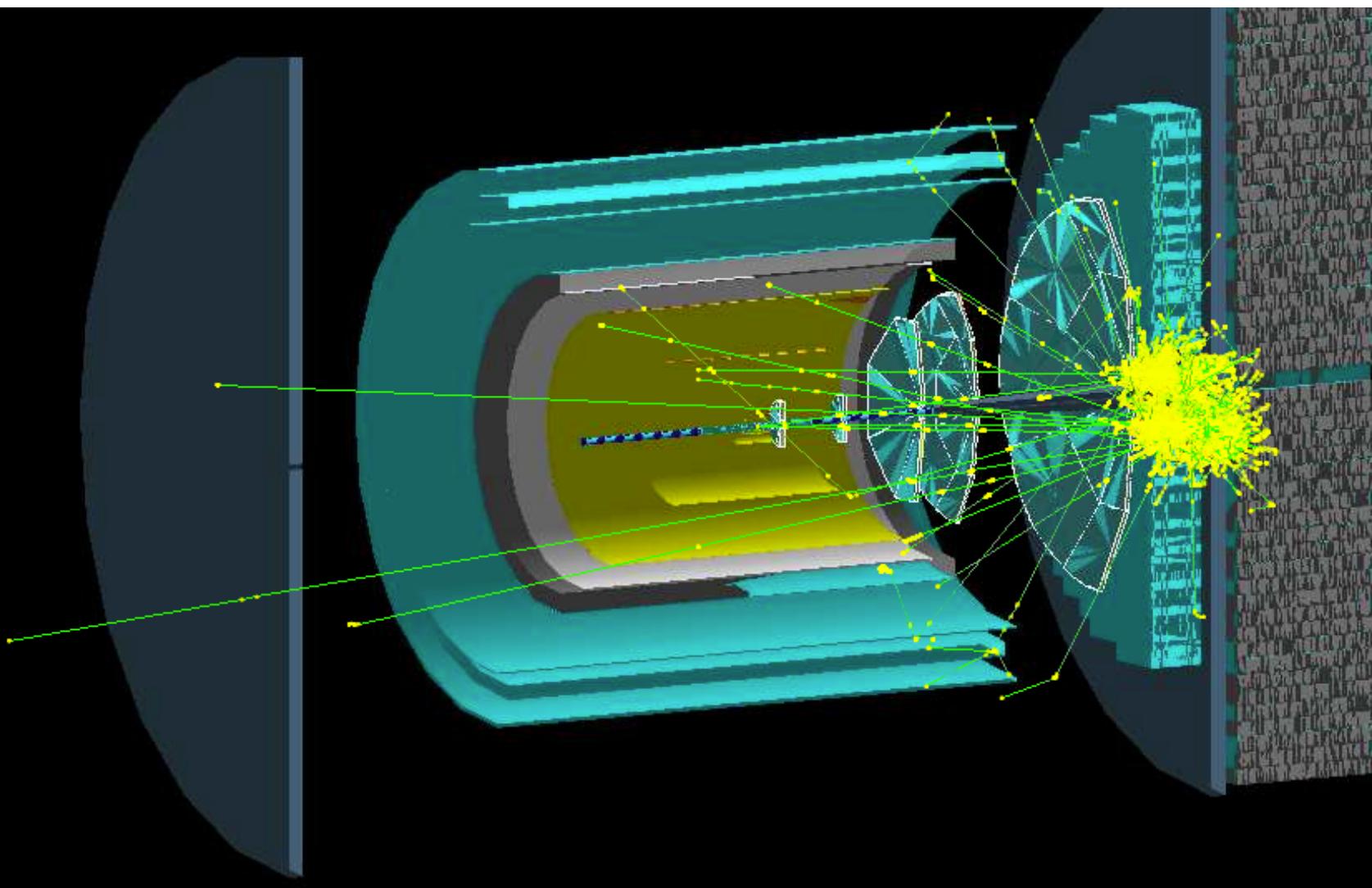
MB event in fsPHENIX Detector, pp 200 GeV p>100MeV



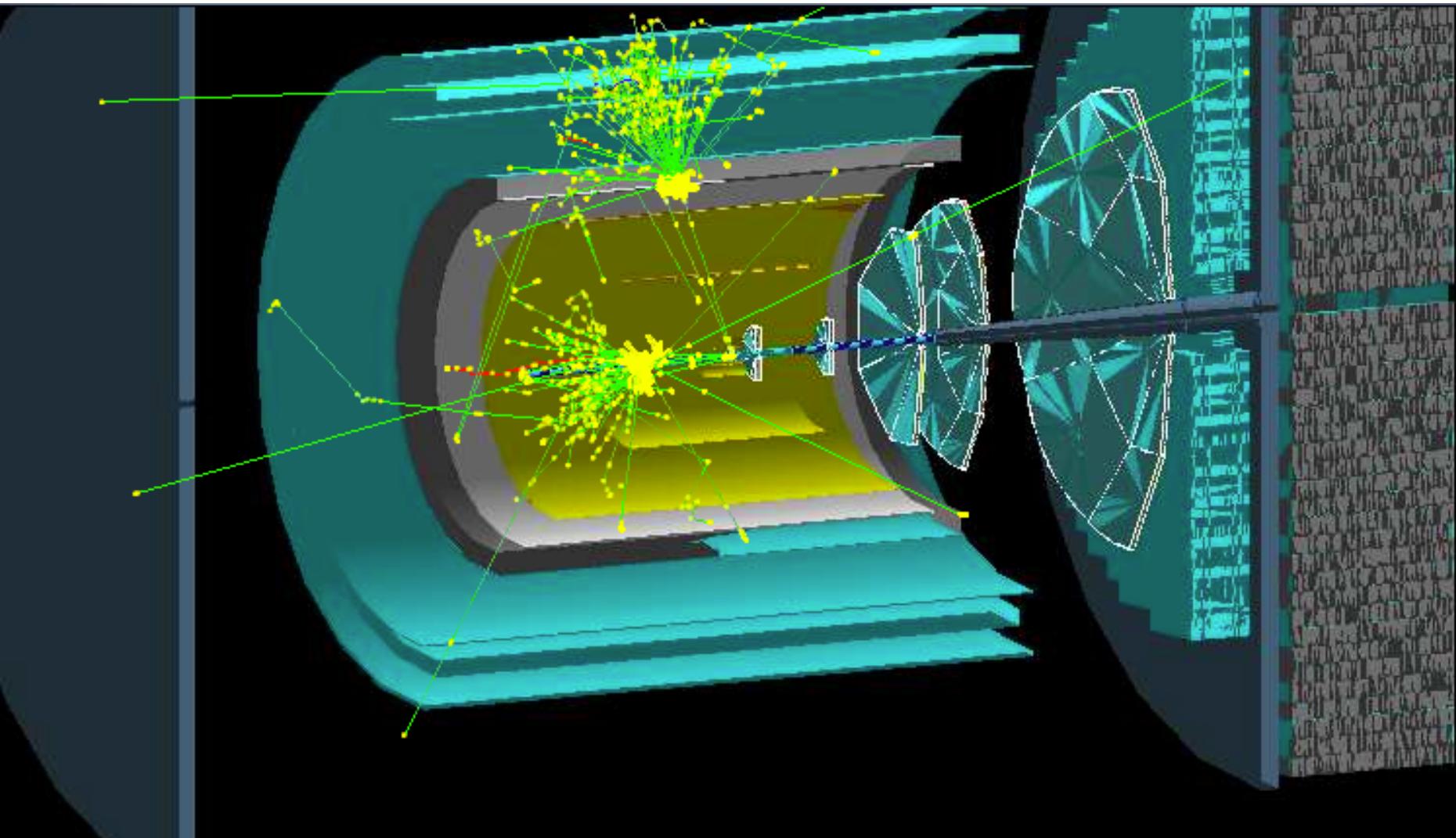
Three γ 's in Central Detector, $P=15 \text{ GeV}/c$



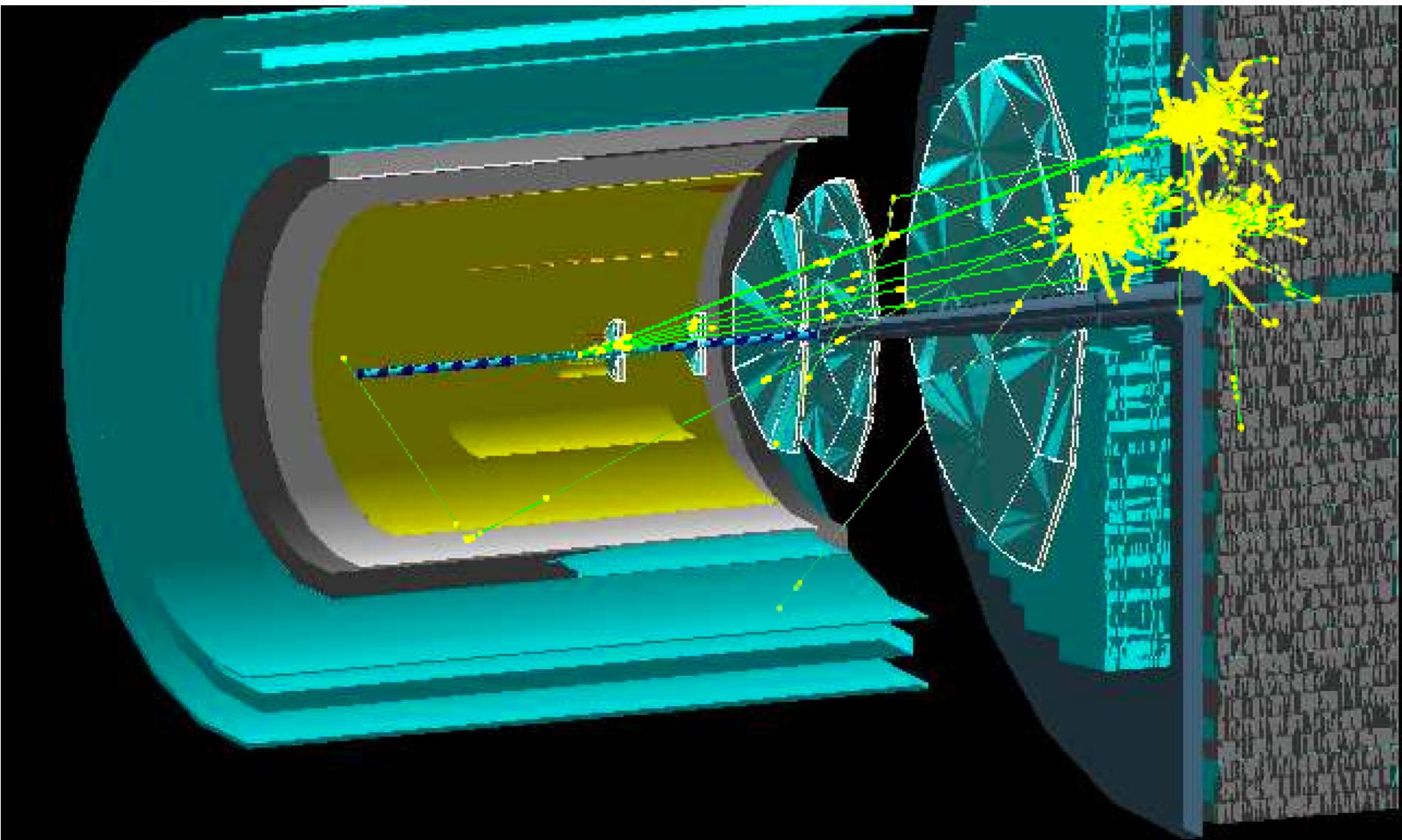
Three γ 's in Forward Detector, $P=15 \text{ GeV}/c$



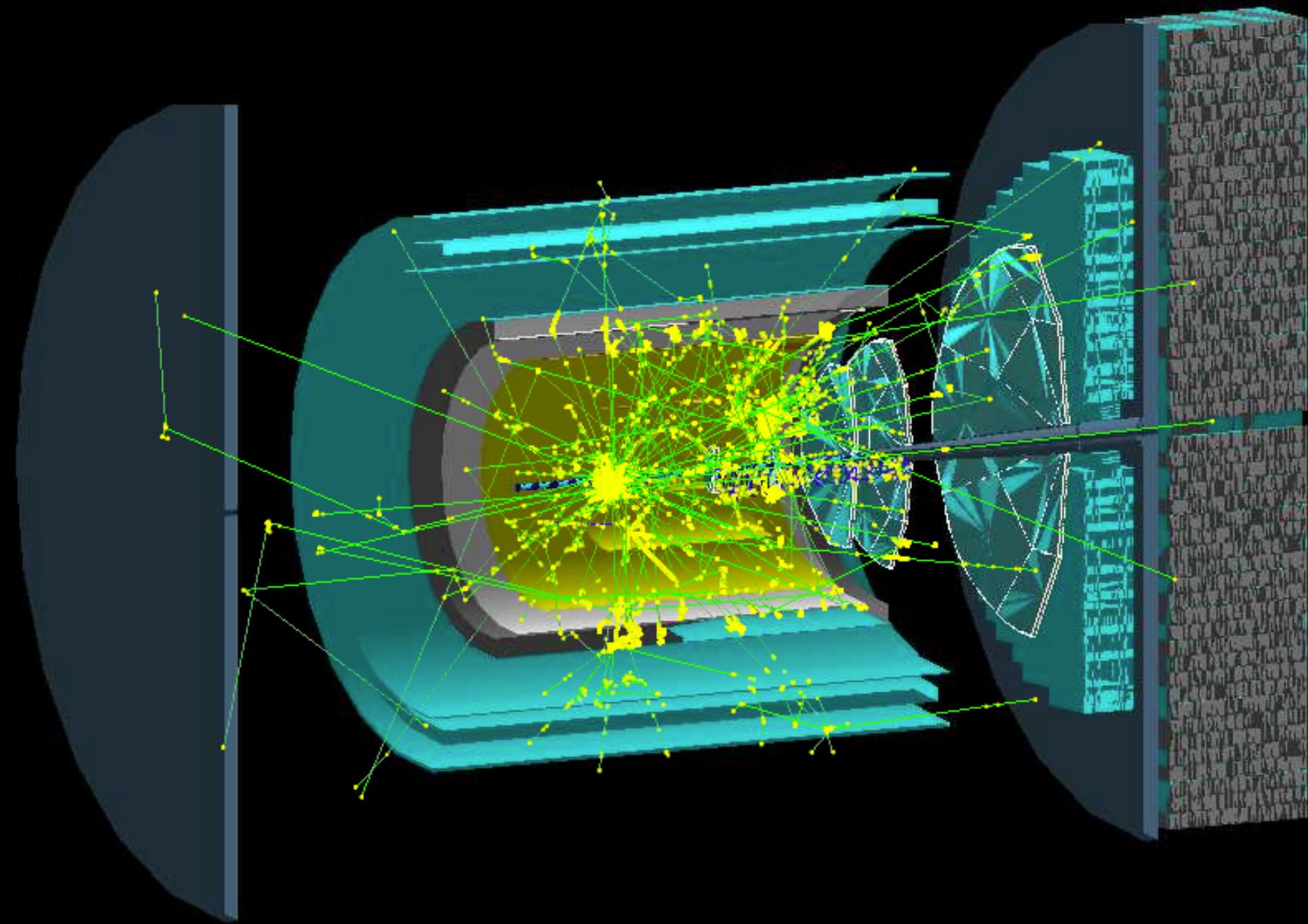
Three π^0 in Central Detector, P=5 GeV/c



Three π^0 in Forward Detector, P=5 GeV



Three η in Central Detector, $P= 5 \text{ GeV}/c$



Three η in Forward Detector, $P= 5 \text{ GeV}/c$

